

version of the changes made to the claim(s) by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

Applicant notes with appreciation the Examiner's allowance of claims 11-14 and 17.

Independent claim 19 stands rejected under 35 U.S.C. Section 102(e) as being allegedly anticipated by Ichimura (US 6,181,397). This Section 102(e) rejection is respectfully traversed for at least the following reasons.

Claim 19 requires that "each of said first and second photomasks comprise both light transmitting portions for transmitting illuminance and light intercepting portions for blocking illuminance from reaching the photosensitive resin so that the asperities and contact hole are formed based upon arrangement of the light transmitting portions and light intercepting portions in the photomasks." Ichimura fails to disclose or suggest this aspect of claim 19.

Ichimura discloses forming asperities in insulating layer 12 using both (i) transparent glass sheet 18 with an irregular surface texture, and (ii) photomask 17. E.g., see Ichimura at Fig. 4; col. 8, lines 47-65; and col. col. 10, line 59 through col. 11, line 24. Applicant respectfully submits that Ichimura's glass sheet 18 is not a photomask. The Examiner disagrees with Applicant in this respect (Applicant appreciates the Examiner's point in this regard).

However, while the Examiner may argue that Ichimura's glass sheet is a photomask, it cannot be said that Ichimura's glass sheet 18 has the light intercepting portions required by claim 19. In particular, claim 19 requires that each photomask

"comprise both light transmitting portions for transmitting illuminance and light intercepting portions for blocking illuminance from reaching the photosensitive resin."

Ichimura's glass sheet 18 has no light intercepting portions which block illuminance in this respect. Instead, Ichimura's entire glass sheet 18 is "*transparent*" as explained by Ichimura at col. 8, line 49 (this is the opposite of the invention of claim 19). Claim 19 cannot be anticipated or otherwise unpatentable over Ichimura. Moreover, *the Examiner indicated in the Advisory Action dated November 18, 2002 that this language would define over Ichimura.*

Moreover, because Ichimura's glass sheet 18 does not include light intercepting portions for blocking illuminance, it is highly undesirable. In particular, this fundamental flaw in Ichimura's sheet 18 renders it impossible to form asperities that are suitable for desired reflective LCD use (e.g., which have few or no flat portions). For example, in the event that transparent glass sheet 18 is placed so as to closely contact the resin, the convex portions of the glass sheet will not function in a suitable manner as a lens since there is no substantial difference in the respective indices of refraction. In the event that the glass sheet 18 is spaced apart from the resin, the exposure would likely not be effective due to scattering by the glass plate 18 and the intensity of light would tend to become uniform on the surface of the resin. In either case, undesirable patterning is the result due to the fact that Ichimura's glass sheet 18 does not include light intercepting portions for blocking light.

Claim 22 also requires that "each of said first and second photomasks comprise both light transmitting portions for transmitting illuminance and light intercepting

portions for blocking illuminance from reaching the photosensitive resin so that the asperities and contact hole are formed based upon arrangement of the light transmitting portions and light intercepting portions in the photomasks." Clearly, Ichimura's "transparent" glass sheet 18 does not include "light intercepting portions for blocking illuminance from reaching the photosensitive resin."

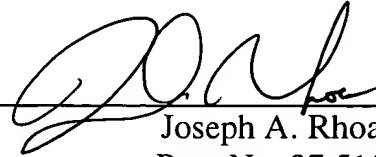
Additionally, it is respectfully submitted that one of ordinary skill in the art would not have modified Ichimura under Section 103 in order to meet claims 19 and 22. In particular, Ichimura requires transparent glass sheet 18 in order to form asperities. There is not disclosure of suggestion in the art of record which would have led one of ordinary skill in the art to have replaced Ichimura's transparent glass sheet with a photomask. Photomasks were known at the time of Ichimura, and the very fact that Ichimura chose not to use a photomask is evidence that the reference teaches directly away from the instant invention. There is no suggestion in the art of record that Ichimura would have been able to form the desired asperities without transparent glass sheet 18.

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:

A handwritten signature in black ink, appearing to read "J. A. Rhoa", is written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

THE CLAIMS

19. (*Amended*) A method of manufacturing a liquid crystal display apparatus having, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light from the other substrate, comprising:

applying a photosensitive resin on said one of the substrates;

in order to form asperities in a first region of the applied photosensitive resin film which do not extend all the way through the photosensitive resin and to form a contact hole in a second region of the applied photosensitive resin film, exposing at least part of the first region with various integrals of exposure amounts using a first photomask so that the photosensitive resin in the first region is left in respective different film thicknesses, and exposing at least part of the second region with an integral of exposure amount different from those for the first region using a second photomask, wherein each of said first and second photomasks comprise both light transmitting portions for transmitting illuminance and light intercepting portions for blocking illuminance from reaching the photosensitive resin so that the asperities and contact hole are formed based upon arrangement of the light transmitting portions and light intercepting portions in the photomasks;

developing the exposed photosensitive resin;

heat-treating the developed photosensitive resin; and

forming a reflecting film on the heat-treated photosensitive resin so that the reflecting film is in electrical communication with a switching element through said contact hole.

22. (*Amended*) A method of making a reflective liquid crystal display, the method comprising:

applying a photosensitive resin to a substrate;

forming asperities which do not extend all the way through the resin in a first region of the photosensitive resin by using a first photomask and exposing at least part of the first region using said first photomask;

forming contact holes in a second region of the photosensitive resin using a second photomask different than the first photomask, and exposing at least part of the second region using said second photomask;

developing the exposed photosensitive resin;

heat treating the developed photosensitive resin;

forming a reflective electrode on the heat treated photosensitive resin over asperities so that said reflective electrode is in communication with at least one switching element through at least one of the contact holes; and

wherein each of said first and second photomasks comprise both light transmitting portions for transmitting illuminance and light intercepting portions for blocking illuminance from reaching the photosensitive resin so that the asperities and contact hole

are formed based upon arrangement of the light transmitting portions and light intercepting portions in the photomasks.